

**Bonneville Power Administration
Fish and Wildlife Program FY99 Proposal**

Section 1. General administrative information

Bakeoven Riparian Assessment

Bonneville project number, if an ongoing project 9133

Business name of agency, institution or organization requesting funding
Wasco County Soil and Water Conservation District

Business acronym (if appropriate) WCSWCD

Proposal contact person or principal investigator:

Name	<u>Ron Graves</u>
Mailing Address	<u>2325 River Road, Suite 3</u>
City, ST Zip	<u>The Dalles, OR 97058</u>
Phone	<u>(541) 296-6178</u>
Fax	<u>(541) 296-7868</u>
Email address	<u>wascoswcd@netcnct.net</u>

Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name
None			

NPPC Program Measure Number(s) which this project addresses.

7.6A1, 7.6A2, 7.6B1, 7.6B3, 7.6B4, 7.6B5, 7.6B6, 7.6C5, 7.6D

NMFS Biological Opinion Number(s) which this project addresses.

NONE

Other planning document references.

- Wy-Kan-Ush-Mi Wa-Kish-Wit Vol. II p.38 (CRITFC 1995) Objective 1 'protect and enhance aquatic and riparian habitat on all land bordering the Deschutes River and its tributaries to result in a net increase in habitat quantity and quality over time.' Objective 2. 'maintain or improve watershed conditions for sustained, long-term

production of fisheries and high quality water.’ Objective 3. ‘maintain or improve flow for fish production in the tributaries of the Deschutes River.’ Strategy 2. Support implementation of existing land and resource management plans. ACTION: Enhance natural production of summer steelhead in Bakeoven Creek.

- Deschutes River Subbasin Plan (1990) Summer Steelhead Strategy 3
- Bakeoven Watershed Preliminary Planning Document, Wasco County Soil and Water Conservation District, August 1994
- Bakeoven Watershed Action Plan, Bakeoven Watershed Council, January 1996
- Stream Report for Bakeoven Creek / Deep Creek, ODFW, September 1995
- Bakeoven Watershed Project has strong support from local landowners, Wasco SWCD, USDA Natural Resources Conservation Service and Farm Services Agency. An on-going watershed enhancement project has received two grants from the Oregon Governor’s Watershed Enhancement Board (GWEB). Long term USDA contracts for implementing conservation systems are in place on approximately 25% of the land base in the watershed. The Wy’East Resource Conservation and Development Area Council consisting of 6 Conservation Districts in the Hood and Deschutes subbasins, 5 County Governments, and the Confederated Tribes of the Warm Springs Reservation of Oregon has endorsed the project. BLM Prineville, Oregon Department of Fish and Wildlife, and Oregon Trout provided funding and assistance in installation of over two miles of riparian fencing. USDA NRCS is providing technical support to the project. Private landowners provide cash or in-kind contributions for practices on their land. Wasco County Court appointed a watershed council in 1995. The Council subsequently worked with the SWCD and supporting agencies in developing a watershed action plan to address the resource needs of Bakeoven Watershed.

Subbasin.

Deschutes subbasin, Bakeoven Creek watershed

Short description.

Assess fish habitat needs based on existing survey data and low level aerial photography. Develop detailed riparian restoration plans and a monitoring plan, commence implementation with 1.5 miles of riparian fence.

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
X	Anadromous fish	+	Construction	X	Watershed
+	Resident fish		O & M		Biodiversity/genetics
+	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research	+	Ecosystems
	Climate	+	Monitoring/eval.	+	Flow/survival

_____ Other	<u> X </u> Resource mgmt	_____ Fish disease
	<u> + </u> Planning/admin.	_____ Supplementation
	_____ Enforcement	<u> + </u> Wildlife habitat en-
	_____ Acquisitions	hancement/restoration

Other keywords.

Watershed Health, water quality, water quantity, natural fish production, habitat restoration, natural resources, rangeland management, conservation

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
NONE		

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1	Ensure overall project coordination maintains high level of agency and landowner participation, avoids overlaps and duplications of effort, identifies and resolves issues as they occur	a	Coordinate project activities with participating agencies
		b	provide regular project updates via newsletter, personal contact, watershed council meetings, and special meetings as needed
		c	Meet with landowners / landowner groups on-site, ensuring their inputs are obtained and factored in to riparian plans.
		d	Coordinate Wasco Co. schools involvement in project for outdoor environmental Education.
2	Develop riparian restoration plan	a	Develop reach maps based on physical stream survey data
		b	Obtain low level aerial photography for use in detailed plans development

Operations & maintenance		0
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		0
PIT tags	# of tags:	0
Travel	2 days @ 66	132
Indirect costs	overhead costs (15%)	4573
Subcontracts	Fencing / Aerial Photography	18500
Other		0
TOTAL		35065

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	60000	110000	90000	0
O&M as % of total	0	0	0	0

Section 6. Abstract

a. FY99 PROPOSAL

b.Goals: Improve watershed health, improve water quality, restore degraded habitat and increase natural steelhead production.

Objectives: Develop detailed riparian restoration plans and associated monitoring plan. Implement demonstration riparian exclosure fencing.

c. Project will set stage for implementing fish habitat improvement measures. It follows NWPPC policies and addresses many measures of the 1994 Fish and Wildlife Program.

d. This project initiates riparian work as the second phase of a comprehensive watershed treatment approach. Land treatment, fencing, livestock water developments, and management systems are being implemented now using other funding sources.

e. This project will construct 1.5 miles of riparian exclosure fencing as a demonstration project, and produce plans necessary to implement a three year riparian restoration effort aimed at boosting natural steelhead production in Bakeoven Creek from less than 200 returning adults to 600 conservatively.

f. Results will be documented and reviewed. Monitoring plan will be based on EPA monitoring protocols.

Section 7. Project description

a. Technical and/or scientific background.

This project addresses goals and objectives of the 1994 Fish and Wildlife Program, the Columbia River Anadromous Fish Plan of the Nez Perce, Umatilla, Warm Springs, and Yakama Tribes, and the Bakeoven Watershed Action Plan (Bakeoven Watershed Council January 1996) sponsored by the Wasco County Soil and Water Conservation District. Their relationship to this project's objectives are discussed below.

This proposal supports all stated objectives for the Deschutes River subbasin: a) maximize protection and enhancement of aquatic and riparian habitat on all land bordering the Deschutes River and its tributaries to result in a net increase in habitat quantity and quality over time; b) maintain or improve watershed conditions for the sustained long-term production of fisheries and high quality water; c) maintain or improve flow for fish production in the tributaries of the Deschutes. (Vol II p.38). It carries out strategy 2 for Bakeoven by initiating fish habitat improvement work. The Columbia River Anadromous Fish Plan also identifies enhancement of natural summer steelhead production in Bakeoven Creek as one of four important strategies for the Deschutes subbasin.

This project supports the 1994 Fish and Wildlife Program goals, policies and objectives as outlined below from Sections 7.6 A, B, and C. The habitat goal (7.6) is to “protect and improve habitat conditions to ensure compatibility with the biological needs ...”

This project deals directly with resource management (human activities) systems affecting steelhead production in a coordinated, comprehensive approach to watershed management (7.6A.1). This project will develop and begin implementation of riparian restoration plans which will protect limited areas of currently good habitat but also improve productivity of steelhead habitat for the weak stock in Bakeoven (7.6A.2).

It follows the habitat policies through locally led coordination and cooperation and strong private landowner involvement in this pro-active project (7.6B.1). Habitat elements of the project will be integrated into a full scale watershed improvement project in which cooperative agreements are obtained with all participating landowners (7.6B.3). Habitat improvements will emphasise implementation of grazing management systems. Those were identified during action plan development as a critical component for riparian restoration. This project makes extensive use of multiple funding sources including private landowner cost share and in-kind support, GWEB, USDA, Oregon Dept. of Agriculture, BLM, Oregon Trout, ODFW and others. It uses technical support and cooperation from OSU Extension, BLM, ODFW, Wasco Co. SWCD, The Confederated Tribes of the Warm Springs Reservation of Oregon, and NRCS (7.6B.5). The project promotes education, involving the local school district. Regular newsletter updates are published. The Conservation District assisted in forming the local watershed council and developing the local assessment and action plan enabling local landowners to take a pro-active role in helping solve their own resource problems (7.6B.6). A coordinated effort is underway in the watershed to adopt management practices necessary to meet locally adopted objectives consistent with the regional habitat objectives. Those systems place maximum emphasis on grazing management systems to allow revegetation of riparian areas to restore proper functioning conditions (7.6C.5). This project will avoid future Operations and Maintenance (O&M) costs by obtaining landowner agreement to assume that burden as a condition of cost sharing.

Habitat degradation in Bakeoven was due primarily to land management practices which, over the course of 125 years, adversely affected watershed health. These same causes were, at least in part, responsible for reducing steelhead populations.

The habitat problems and watershed health issues identified in Bakeoven need to be integrated into a systems approach to treatment

The proposed work will contribute, along with other funding sources, toward grazing system implementation related to riparian areas and toward fish stream improvements.

Significant work history on the project is outlined as follows. Initial project planning was completed in 1994 under an Oregon Department of Agriculture grant and a proposal submitted for funding from the Oregon Governor's Watershed Enhancement Board to commence upland work focused on grazing management systems and the tools to make them work, primarily fencing and off-stream water developments. The project is entering its third year of a planned 5 year upland treatment effort and is ready to initiate an estimated 3.5 year effort on riparian restoration.

Wasco County SWCD District Manager Ron Graves has been involved as project manager/coordinator since the project began, and is also involved in the ongoing Buck Hollow Watershed Project. Similar work is underway in the neighboring Pine Hollow Watershed.

References:

Bakeoven Watershed Preliminary Planning Document (Wasco Co. SWCD August 1994)
Bakeoven Watershed Action Plan (Bakeoven Watershed Council January 1996)
(see also references listed in section 1)

b. Proposal objectives.

Objectives are: 1. Coordinate project activities to avoid overlap, duplication, and to identify and resolve issues which may arise. 2. Develop detailed restoration plans including refined schedule and budget and monitoring plan. 3. Install 1.5 miles of demonstration riparian exclosure fencing.

Products resulting from this project include detailed riparian restoration plans and associated monitoring plan, 1.5 miles of riparian fencing.

c. Rationale and significance to Regional Programs.

The proposed project will complete detailed planning for the riparian restoration phase of the watershed project and implement riparian grazing management systems, establish riparian fencing. Riparian buffers under the USDA Conservation Reserve Program will be promoted. This program has the potential of guaranteeing at least 10-15 years of rest from grazing and possibly up to 30 years of rest if Oregon is successful in obtaining federal funds for program enhancement. Other funding sources will be used for land treatment and upland range improvements.

This proposed project needs to be viewed in the context of its relationship to the rest of the comprehensive watershed plan. Improved management systems along with appropriate tools (fencing and water developments) are being put into place to better manage upland range and cropland, reducing both runoff and erosion, and providing some protection to the stream corridor from damaging events. This project will complete preparations for and begin implementation of the second phase of the watershed project which focusses on riparian areas.

This project strongly supports the goals and objectives of the 1994 Fish and Wildlife Program and the Columbia River Anadromous Fish Plan helping restore a weak stock of summer steelhead in a principle Deschutes tributary. Integrated into a holistic watershed project, this project will have benefits to many other species beyond the target species, summer steelhead.

The SWCD requires landowners, through written agreements, to assume O&M responsibilities and associated costs as a condition of receiving cost share for conservation practices applied on their land.

d. Project history

This is a new project. Two years of a five year upland treatment phase have been completed using other funding sources. This project initiates a 3.5 year riparian restoration phase.

Years underway: 0
Past costs: \$0

e. Methods.

1. Project coordination to maintain landowner and agency participation, avoid overlap and duplication of effort, and to identify and resolve issues as they occur is a necessary component of any project. Tasks associated with this objective occur in parallel and include regular interface with participating agencies, watershed council, and individual landowner participants. It includes providing opportunities for local student involvement in natural resources. In addition to the coordination effort, one task under this objective includes providing public information on project activities.

2. Development of detailed riparian restoration plans includes tasks to develop working maps based on physical stream survey data, summation of key habitat parameters, collection of low level aerial photography for use in detailed plan development. Flight photos will be keyed to maps, and a tentative worklist and specific habitat objectives developed based on the habitat needs identified in the survey data and the aerial photos. Site checks will be conducted to finalize the worklist. Based on the finalized worklist a fine tuned budget and schedule for implementation will be developed. A monitoring plan based on EPA protocols will be developed to measure progress toward meeting habitat objectives.

3. Install 1.5 miles of riparian fencing. Bakeoven Creek has approximately 21 miles of mainstem including Deep Creek, its main tributary. During the course of planning, working with landowners, and implementing on-going land treatment measures a site will be selected with a cooperating landowner for installation of approximately 1.5 miles of riparian exclosure fencing as a demonstration. An agreement will be developed with the landowner and include provisions for landowner O&M. Fencing material will be acquired and arrangements made for construction of the fence to NRCS standards and specifications.

No risks to habitat, other organisms, or people are readily apparent. Before and after photos of the fencing will be obtained. Photo points will be established to monitor

effectiveness of the enclosure fencing. Additional parameters to be measured will be established after the site has been selected. Accepted monitoring protocols will be used.

f. Facilities and equipment.

Office space in the USDA Service Center in The Dalles will be used to support the project. Macintosh and Pentium computers are available as well as a variety of printers and a plotter, as well as ARCVIEW and ARCINFO software. Adequate field equipment is available to support the project and includes water quality monitoring equipment, survey instruments, a leased 4wd pick-up, an ATV.

No capital expenditures are planned.

g. References.

Barrett, Hugh, et al, Riparian Area Management, 1993. Technical Reference 1737-9, USDI Bureau of Land Management, Denver Colorado.

Bauer, Stephen and Burton, Timothy, Monitoring Protocols to Evaluate Water Quality Effects of Grazing Management on Western Rangeland Streams, October 1993. EPA 910/R-93-017, US Environmental Protection Agency Region 10, Seattle, WA.

Section 8. Relationships to other projects

This project is a stand-alone project with respect to other work funded under the Fish and Wildlife Program.

Project Manager and many other agency personnel have been involved in the Buck Hollow Watershed Project. Several local ranches straddle the watershed boundary of Buck Hollow and Bakeoven. Watershed restoration activities are well understood and supported by the private landowners in the area. Bakeoven has high levels of local interest and many agency personnel who have participated in the Buck Hollow project are also involved in the Bakeoven. Bakeoven has enough in common with Buck Hollow watershed that it should be able to draw heavily on experience and work done in Buck Hollow.

Permit applications are submitted to Division of State Lands for review and approval. Nearly all project instream work falls in a special category which can be handled on a form called a Fish Habitat Reporting Form (formerly a waiver form). These reporting forms expedite the approval process because key reviewing authority signatures are obtained before the form is submitted.

Section 9. Key personnel

The Project Manager is Ron Graves. He is planned for 0.17 FTE in FY99. Duties include overall project coordination and management. He serves as point of contact for participating landowners and agencies. Financial management aspects of the job include accounting for expenditures against authorized line items, obtaining other grants to assist in implementation, developing cost breakdown spreadsheets to share costs for individual

practices or systems of practices between authorized funding sources. He is designated as the District Contracting Officer and where contracts are required, prepares all contract documentation and solicitations. He conducts site showings and bid openings in accordance with the contracting manual and procedures adopted by the District Contract Review Board. In addition he obtains landowner agreements for participation in the project. He prepares all project related invoices and payments. These are reviewed monthly by the District Board of Directors. He prepares and submits all required project reports and necessary permit applications. Plans and conducts project related meetings as required and an annual all-participants meeting. Prepares briefings on the project for different forums and regular newsletter articles. He provides daily supervision to the Project Technician and assists with field work as needed.

Project Technician is Ryan Bessette. He is planned for 0.10 FTE in FY99. His responsibilities include serving as inspector during and on completion of practice implementation, obtaining and compiling monitoring information, including photo documentation. He records completed watershed work on appropriate maps. He works with the landowners and NRCS planners in developing grazing management plans and with NRCS technicians in laying out practices in the field. He prepares topographic maps and associated aerial photography for field use to assist in laying out portions of ranch plans. He obtains plant materials, cuttings and seed mixes for use in the project and assists in planting and seeding activities, including supervising planters.

Resumes:

Ron Graves Education: - BS Oceanography,
University of Washington 1977
- MS Meteorology and Oceanography,
Naval Postgraduate School Monterey 1982
Employer: Wasco County Soil and Water Conservation District
May 1990 to present
Duties: District Manager with responsibilities for all aspects of
District Operations, Administration, Project Management
Recent United States Navy
Employment 1966-1977 Naval Communications Technician
1977-1990 Naval Surface Warfare Officer

Expertise: Extensive leadership and management experience in the U.S. Navy, with extensive planning experience ranging from routine operations, to amphibious assaults which required extremely detailed, down to the second planning, to Battleship Surface Action Group deployment which required broad knowledge of naval operations, tactics, and operating characteristics of a wide range of ships and aircraft. Extensive project management experience at Naval Weapons Center, China Lake as project manager for the NATO Anti-Air Warfare System where the Center was Missile Design Agent. Systems engineering was the watchword for that program, where direction was provided to 21 scientists and engineers at the Center and efforts of 5 other nations and 3 U.S. laboratories were coordinated. Recent project completions include the first 4 of 8 Buck Hollow project phases most recent of which was Phase 4, completed in July 1997; a combined Oregon Dept. of Agriculture Planning and Implementation Grant and DEQ Water Quality (319) grant to implement best management practices to reduce erosion and runoff in the Fifteenmile Watershed completed in June 1997; and a bio-engineering demonstration project on lower Fifteenmile Creek using multiple funding sources, completed in November 1997.

<u>Ryan Bessette</u>	Education	- BS Rangeland Resources, Oregon State University with minor in Natural Resources, 1992
	Employer:	Wasco County Soil and Water Conservation District November 1996 to present
	Duties:	District Technician, assigned full time to Buck Hollow Watershed Project with responsibilities, in planning, implementation, monitoring, compiling data
	Recent Employment	United States Forest Service 4/93 - 11/96 Range Technician Mt. Hood NF 6/92 - 2/93 Range Technician Malheur NF 6/91 - 9/91 Range Technician Mt. Hood NF Oregon State University 6/90 - 9/90 Research Assistant

Expertise Has a wealth of experience relating to range and riparian systems. Has experience conducting stream surveys for vegetative cover and stream bank stability. Surveyed mountain streams for fish habitat and livestock impacts. Conducted juniper debris loading operations on various streams. Coordinated several range projects on Mt. Hood NF and Columbia Gorge Scenic Area. Has worked on watershed analysis for White River and Environmental Assessments for various grazing allotments. Supervised and managed cattle grazing activities and monitored vegetative conditions of grazing allotments. Has supervised Youth Conservation Corps and Youth Forest Camp crews in fence construction and provided oversight and inspector duties on fencing contracts and bio-engineering contracts. Has supervised Americorps crews in riparian planting and grass seeding activity. Collected data on research plots of various seeded grasses. Has collected baseline and monitoring data on water quality, flows, and stream geomorphology. Plant identification of forbs, grasses, and shrubs.

Section 10. Information/technology transfer

This is a combination planning and implementation project. Project information will be distributed in a regular, bi-monthly newsletter, and at regular watershed council meetings. Presentations to various groups are also used to convey information about the project and observed results. Publication of the detailed plans will be made available for agency and public review.